

Amendments to the Specification:

After the title, please insert the following subheading and paragraph [0001]:

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application is entitled to the benefit of and incorporates by reference essential subject matter disclosed in International Application No. PCT/SE2003/001334 filed on August 28, 2003 and Swedish Patent Application No. 0202622.7 filed on September 4, 2002.

Before paragraph [0002], please insert the following subheading

FIELD OF THE INVENTION

Please replace paragraph [0002] with the following amended paragraph:

[0002] The present invention relates to an apparatus for cleaning of a gas from particles suspended therein, including a centrifugal rotor for rotation of the gas. The centrifugal rotor is rotatable about a rotational axis in two bearings arranged axially spaced from each other.

Before paragraph [0003], please insert the following subheading

BACKGROUND OF THE INVENTION

Please replace paragraphs [0003-0004] with the following amended paragraphs:

[0003] So-called self-lubricating bearings are known in the art. exists, which Such bearings generally do not require the supply of additional lubricant during operation[[],]. However, a difficulty often occurs when these bearings are used in conjunction with a centrifuge rotor, but in connection with a centrifugal rotor of the kind here in question In those cases, it is often required that the bearings are be charged continuously or intermittently with lubricant in the form of oil or some other liquid. Sometimes, where the rotor is used to clean gas, liquid suspended in the gas to be cleaned in the centrifugal rotor in question may be

used for the lubrication. In other cases, lubricant from a special source of lubrication lubricant source may have to be supplied.

~~A prerequisite for the present invention is that said bearings are arranged to be charged with lubricant during operation of the centrifugal rotor and that a mist containing such lubricant is accessible or is generated in a space near the centrifugal rotor.~~

[0004] The general object of the present invention is to provide a centrifugal gas cleaning apparatus ~~of the initially defined kind, which has a construction that facilitates adequate lubrication of both said bearings by supply of such a lubricant mist~~ the bearings support the centrifuge rotor.

Before paragraph **[0005]**, please insert the following subheading

SUMMARY OF THE INVENTION

Please replace paragraphs **[0005-0007]** with the following amended paragraphs:

[0005] According to the invention, this object may be obtained by an apparatus, in which the centrifugal rotor surrounds a channel, which extends axially — preferably centrally — through the rotor and through which a lubricant mist is movable from ~~the aforementioned~~ a space near the centrifugal rotor into contact with one of at least two the bearings rotatably coupled to the centrifugal rotor. Hereby it is made possible for both of the bearings to be easily accessible to lubricant mist from said space without a separate connection having to be created outside the centrifugal rotor between the space and the bearing situated farthest therefrom.

[0006] ~~As already mentioned, the said~~ The space may contain or be arranged to be flowed through ~~by so that~~ gas to be cleaned in the centrifugal rotor and containing suspended drops of lubricant, e.g. oil of some kind flows through the space. As an example, this may be the case when the apparatus is arranged for cleaning of crankcase gas coming from a combustion engine. In this case, the centrifugal rotor may be arranged to be driven in any suitable way, e.g. by means of an electric motor or a gas turbine. Alternatively, said space may contain a lubricant mist, which is generated especially to provide lubrication of the

bearings of the centrifugal rotor. In another case, a lubricant mist may be generated in connection with bringing the centrifugal rotor into rotation hydraulically. For instance, the centrifugal rotor may be brought into rotation by being charged with pressurized oil, which is brought to leave leaves the centrifugal rotor through a nozzle placed at a distance from the rotational axis of the centrifugal rotor and directed tangentially relative thereto. In the chamber, in which such driving oil leaves the centrifugal rotor, an oil mist is created in the surrounding gas or air. Alternatively, hydraulic driving of the centrifugal rotor may be performed such that a pressurized oil is sprayed against a turbine wheel arranged for rotation of the centrifugal rotor. The space surrounding the turbine wheel will then be filled with an oil mist.

[0007] In a preferred embodiment of the apparatus according to the present invention, one axial end of the centrifugal rotor is situated within or near the space containing lubricating oil mist, the channel through the centrifugal rotor extending from said one axial end of the centrifugal rotor to the opposite ~~ether~~-end thereof, where it opens into a lubricant chamber having an outlet arranged so that lubricant mist, which moves through the lubricant chamber, gets into contact with said one of the bearings.

Before paragraph **[0008]**, please insert the following subheading

BRIEF DESCRIPTION OF THE DRAWING

Before paragraph **[0009]**, please insert the following subheading

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Please replace paragraph **[0009]** with the following amended paragraph:

[0009] In the drawing there is shown a housing, which includes an upper part 1, an intermediate part 2 and a lower part 3. The interior of the housing is divided by means of a partition 4 into an upper separation chamber 5 and a lower driving chamber 6. A centrifugal rotor 7 is rotatable in the separation chamber 5 around a vertical rotational axis and is therefore journalled in an upper bearing 8 and a lower bearing 9. The bearings 8 and 9, which are ball bearings in the shown example illustrated embodiment, are supported by the upper housing part I and the partition 4, respectively.

Please replace paragraph [0023] with the following amended paragraph:

[0023] Above is described a centrifugal rotor having a hollow shaft 10 which is suspended in bearings arranged on the outside of the shaft. The invention also ~~includes a possibility that the encompasses~~ a centrifugal rotor ~~that~~ is suspended in bearings, which are supported on the outside of a stationary shaft extending centrally through the centrifugal rotor. In such a case, the stationary shaft may have a through channel for oil mist that shall move from one to the other of the axial ends of the centrifugal rotor. Also in this case, thus, the centrifugal rotor surrounds the channel for oil mist.